

## HIGH-MECHANICAL STRENGTH COPPER ALLOY

*R/K*  
This application is a continuation-in-part application of  
U.S. patent application Ser. No. 09/966,389 filed on September  
5 27, 2001, <sup>now U.S. Pat. No. 6,893,514</sup> claiming a foreign priority of JP2000-381863 filed on  
December 15, 2000.

### FIELD

The present invention relates to a high-mechanical strength  
10 copper alloy.

### BACKGROUND

In accordance with recent trends for miniaturizing and  
making electric and electronic machinery and tools having a high  
15 performance, a material for components used therein, such as a  
connector, has been required to be further improved in all the  
features.

For example, a spring sheet used at a contact point of a  
connector has been modified to become thinner and thinner, which  
20 becomes difficult to keep a sufficient contact pressure. That is,  
when the spring sheet is deflected at a contact point of the  
connector, a counterforce is generated to give a contact  
pressure to make electrical connection. Therefore, the thinner  
the sheet is made, the larger the sheet has to be deflected to  
25 keep a contact pressure at a similar level. However, when the  
sheet is deflected to the extent exceeding an elasticity limit  
of the sheet, plastic deformation is occurred. Accordingly,  
additional improvement is demanded to prevent plastic